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VIA U.S. & ELECTRONIC MAIL

Re: MCEA Comments on U.S. Steel Minntac's Section 404 Permit

Dear Mr. Hingsberger,

I write to provide the comments of Minnesota Center for Environmental Advocacy on U.S. Steel Minntac's application for a Section 404 Permit associated with its construction of a Seepage Collection and Return System ("SC&RS") on the west side of the tailings basin. Thank you for the opportunity to comment. MCEA is a Minnesota-based non-profit environmental organization, the legal and scientific voice protecting and preserving Minnesota's wildlife, natural resources, and the health of its people. We have members across the state of Minnesota, some of whom live and recreate near the proposed project and downstream from the U.S. Steel-Minntac facility.

While MCEA supports U.S. Steel's efforts to try to minimize discharge from its tailings basin, MCEA is concerned that U.S. Steel is not implementing the most effective methods available, and has not taken appropriate steps to evaluate alternative strategies that would meet the project's purpose. In addition, MCEA is concerned that U.S. Steel has not completed an adequate search for in-watershed mitigation options or received United States Army Corps of Engineers' ("USACE") approval of wetland credits to allow this project to go forward.

Therefore, MCEA recommends:

(1) That the purpose of the project be broadened to permit adequate discussion of alternatives;

(2) That an Environmental Assessment ("EA") associated with the proposed project include a range of alternative strategies to meet this broader purpose;

(3) That the EA consider potential impacts on groundwater, downstream surface water quality, and wetlands when evaluating those alternatives;

(4) That the EA associated with the proposed project be released for public comment; and

(5) That this project not be permitted to go forward unless U.S. Steel is able to prove that it has complied with sequencing requirements, and that sufficient wetlands credits have been approved at the Palisade III or another site to mitigate the lost wetlands.

(6) That the 404(b)(1) analysis considers a range of practicable alternatives in light of the project's purpose to reduce the impact of surface seepage on downstream water quality of the Dark River watershed.

I. U.S. Steel-Minntac's History Of Water Pollution.

U.S. Steel-Minntac is an iron ore mining and processing operation that began operation in 1967. Its tailings basin was built prior to the passage of the Clean Water Act, and it did not undergo environmental review when built. The tailings basin is designed to store fine tailings, a by-product of processing sent to the basin in slurry form. The water in the tailings basin discharges through surface discharge points and seeps to surface water through dike walls or seeps through groundwater to surface water. U.S. Steel also appropriates water from the tailings basin for use as process water in the plant.

The tailings basin sits at the headwaters of three watersheds – the Dark River, Sand River and Johnson Creek. The tailings basin leaks into groundwater on all three sides of the tailings basin. In 2011, U.S. Steel-Minntac built a SC&RS on the Sand River side, using a design similar to the one in the proposed project. The SC&RS has decreased water pollution from the tailings basin on the Sand River side, but has not eliminated it.

The tailings basin is subject to regulation under the Clean Water Act. U.S. Steel holds NPDES/SDS Permit No. MN 0057207, which was issued in 1987 and expired in 1992.[1] The 1987 permit has been administratively continued for over 20 years and never been re-opened or re-issued. Permit No. MN0057207 for the tailings basin area has almost no discharge limits for pollutants discharged from the tailings basin. It does not limit the discharge of most constituents; it contains limits for oil & grease, pH and Total Suspended Solids only. It does not limit discharge of specific conductance or sulfate, but only requires monitoring of those discharges. It contains no limits or monitoring for other pollutants such as fluoride, bicarbonates, hardness, mercury, molybdenum, TDS or chloride. Even with these minimal and inadequate effluent limits, U.S. Steel-Minntac has violated its NPDES/SDS permit every year since at least 2007.[2]

The NPDES Permit specifically authorized discharge from the tailings basin at two discrete seepage points, SD001 and SD002. SD001 is located at the west toe of the tailings basin, and SD002 is located at the east toe. However, the permit acknowledges that these are merely "[t]wo of the largest seepage points."[3] There are other surface discharge points that are not monitored or

[1] NPDES/SDS Permit No. MN0057207, attached as Exhibit 1.
[2] *See In the Matter of United States Steel Schedule of Compliance*, Part 6, p. 8-9 (attached as Exhibit 2).
[3] NPDES Permit, Exhibit 1, p. 4.

regulated. In addition, the tailings basin drains through the dikes, shallow subsurface seepage, and groundwater.

The surface discharge from the tailings basin that is the subject of regulation of the above-mentioned NPDES/SDS Permit are also the driving reason for the proposed seepage collection system. The Minntac tailings basin has caused violations of state water quality standards in the Sand River, the Dark River, and other downstream waters since at least 1990.[4] A 2004 EIS prepared by MPCA identified 11 "key constituents" for a water quality evaluation of the tailings basin:

- Sulfate
- Chloride
- Total Dissolved Solids ("TDS")
- pH
- Fluoride
- Hardness
- Manganese
- Mercury
- Temperature
- Conductivity; and
- Molybdenum[5]

The 2004 EIS noted that concentrations for hardness, alkalinity, conductivity, neutral pH, TDS and sulfate were all high.[6] Sulfate levels were recorded in excess of 1000 mg/l.[7] Over time, the concentrations of sulfate and conductivity in the Dark River have increased as a result of discharges from the tailings basin.[8]

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[4] *Minntac Water Inventory Reduction Environmental Impact Statement*, September 2004, prepared by Minnesota Pollution Control Agency, attached as Exhibit 3.

[5] *Id.* at 5-24. The 2004 EIS was prepared to evaluate a proposal by U.S. Steel to release water from the tailings basin, which was at risk of overflowing. The proposed project did not proceed, but the section of the EIS evaluating "present conditions" provides helpful information about the current water quality impacts of the tailings basin. While MCEA recognizes that some modifications have been made since 2004, those modifications have gone forward without significant environmental review, and the 2004 EIS remains among the best sources of information about pollution from the tailings basin. MCEA also notes that if U.S. Army Corps of Engineers or Minnesota Department of Natural Resources believes that there is a better source of information about pollution from the tailings basin, ACE should evaluate it as part of the EA process for this proposed project.

[6] *Id.* at 5-27.

[7] *Id.*

[8] *Id.* at 5-29 – 5-30.

More recently, surface and groundwater gauges around the Minntac tailings basin demonstrate that the tailings basin is causing water quality violations, sometimes exceeding water quality standards by many orders of magnitude. Minnesota Pollution Control Agency produced the following table of "parameters of concern" and observed pollutant concentrations surrounding the tailings basin.[9]

Table 1

Minntac Tailings Basin	Groundwater & Drinking Water (trout)		Industrial Consumption		Agric. and Wildlife		Observed Concentrations		
Parameters of Concern	Class 1	Secondary Drinking Water Standard	Class 3B (trout)	Class 3C	Class 4A (irrig. And wild rice)	Class 4B (livestock and wildlife)	GW012	Dark River @ CR668	Sand River / Twin Lakes (Twin 1-Sept 2013)
Bicarbonates (HCO3 as CaCO3)					250 mg/L		N/A	505	314
Fluoride	4.0 mg/L	2.0 mg/L					NM	8.67 (seep)	N/A
Hardness (Ca+Mg as CaCO3)			250 mg/L	500 mg/L			N/A	1430	NM
Specific Conductance					1000 uS		N/A	2367	1890
Sulfate		250 mg/L			10 mg/L	1000 mg/L	435	900	650
TDS		500 mg/L			700 mg/L		840	1950	1390

The table demonstrates that U.S. Steel Minntac's discharges from its tailings basin exceed applicable ground and surface water standards for all six pollutants listed.

II. The Proposed Seepage And Collection System Will Not Prevent Pollution.

Enforcement actions taken against Minntac have a long and complicated history. U.S. Steel has been subject to at least four separate Schedules of Compliance ("SOC") since 2001 in an effort to bring it into compliance with water quality and air quality standards; it has also paid over $100,000 in penalties for violations of those SOCs. It is currently subject to a Schedule of Compliance, most recently amended on February 12, 2013 that relates to both the Minntac and Keetac facilities.[10] The current Schedule of Compliance addresses NO_x emissions at Minntac, mercury emissions at both Minntac and Keetac, and sulfate and hardness discharges at Minntac.

Under the 2011 SOC, US Steel is required to propose unspecified solutions to its sulfate and hardness violations at Minntac. It is also required to evaluate the feasibility of collecting seepage on the Dark River side of its Minntac tailings basin, similar to the previously-implemented seepage collection system on the Sand River side. It is required to install monitoring wells that will refine a groundwater model for sulfate transport and monitor compliance with the sulfate groundwater standard at the property boundary.[11] The 2013 Amendment includes alleged violations related to the sulfate standard for groundwater. It requires U.S. Steel to create a

[9] This table was attached to an email from Erik Smith, MPCA hydrologist, to Steve Sommer and Suzanne Baumann, dated October 15, 2013. MCEA obtained the email pursuant to a Data Practices Act request. The email and attachment is attached as Exhibit 4.
[10] Schedule of Compliance, Amendment Number 1, attached as Exhibit 2 at pp. 39-42.
[11] *Id.*, Part 7, paragraphs jjj – ooo.

Groundwater Sulfate Reduction Plan, but does not include a deadline by which a reduction plan must be implemented, nor any benchmarks for achieving sulfate reduction.

The effectiveness of the SOC is severely limited by two basic facts. First, it has no comply-by date. The SOC, though ostensibly an effort by MPCA to bring U.S. Steel into compliance with its NPDES Permit, does not require that U.S. Steel Minntac comply with its Permit by any particular date. Second, even if the SOC was successful, it would bring U.S. Steel-Minntac into compliance with an NPDES Permit that does not protect surrounding waters because it does not limit the discharge of five out of the six parameters in Table 1, nor any of the pollutants of concern identified in the 2004 EIS.

While the NPDES Permit itself is not the subject of the proposed project, it is important to understand the context. The proposed project is part of a long-standing arrangement between the Minnesota Pollution Control Agency and U.S. Steel that has, thus far, failed to protect the waters around the Minntac tailings basin as required by the Clean Water Act. Nor does it appear that MPCA has plans to require effective action by U.S. Steel-Minntac in the near future, as no deadlines for compliance with the NPDES Permit have been imposed.

III. The Purpose Of The Project Has Been Defined Too Narrowly.

The purpose of the project should be defined broadly to permit the USACE to consider a wide range of options for decreasing the water quality impacts of the U.S. Steel-Minntac tailings basin. The private interests of the applicant should not define the scope of the purpose and need for a project:

> Agencies must look hard at the factors relevant to the definition of purpose… Perhaps more importantly [than the need to take private interests into account], an agency should always consider the views of Congress, expressed, to the extent that the agency can determine them, in the agency's statutory authorization to act, as well as in other congressional directives.[12]

When an agency contrives a purpose so "slender as to define competing 'reasonable alternatives' out of consideration," the federal courts are obligated to step in and correct such a "frustration of Congressional will."[13]

As discussed above, the MPCA's goal in requiring U.S. Steel-Minntac to undertake this project is to bring it into compliance with its NPDES Permit. The MPCA is the delegated authority to enforce the Clean Water Act in Minnesota. The goals of the Clean Water Act include the

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[12] *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C.C. 1991), *cert. denied* 502 U.S. 994; quoted by *National Parks & Conservation Ass'n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1070 (9th Cir. 2009).

[13] *Simmons v. United States Army Corps of Eng'rs*, 120 F.3d 664, 669 (7th Cir. 1997).

restoration and maintenance of "the chemical, physical, and biological integrity of the Nation's waters," including through the implementation of water quality standards.[14]

The USACE's goal in issuing a Section 404 permit is similarly governed by the Clean Water Act.[15] Thus, the goal of all agencies involved is to bring U.S. Steel into compliance with the Clean Water Act, thereby restoring and maintaining the chemical, physical, and biological integrity of the waters surrounding its tailings basin.

The stated purpose of the project, according to the Public Notice, is "to collect surface seepage water from the west tailings basin perimeter dike and return it back to the tailings basin to reduce the impact of surface seepage on downstream water quality." But this is U.S. Steel's purpose based on the particular alternative that it has pre-selected, not the USACE's purpose in permitting the dredge and fill of wetlands. A more appropriate purpose would be "to reduce the impact of seepage from the tailings basin on downstream water quality of the Dark River watershed."

Stating the purpose of the project correctly then allows USACE to consider not only alternative designs for the seepage collection system, but alternative strategies that would also address water quality impacts of the tailings basin on the Dark River watershed. For instance, water quality treatment, such as a wastewater treatment plant at the site that treats water before discharge, would address water quality problems at the source – the tailings basin – with minimal or no wetlands impacts, depending on the location.

IV. The USACE Must Evaluate Alternatives To Comply With NEPA.

A. USACE must evaluate alternative designs for a seepage and collection system as part of an EA.

Alternatives to the proposed SC&RS have not been analyzed. The Public Notice issued by the USACE indicates that the permit application does not present design alternatives, but that "other designs to collect seepage water from the west tailings basin were explored and rejected due to technical issues, construction risks, and a much larger area of wetland impact than the proposed design." However, allowing the applicant to screen and reject alternatives prior to the EA process is directly contrary to USACE's obligations under the National Environmental Policy Act ("NEPA") and the 404(b)(1) Guidelines.

An EA must include discussions of "alternatives as required by section 102(2)(E), of the environmental impacts of the proposed action and alternatives, and a listing of agencies and persons consulted."[16] Section 102(2)(E) requires that all agencies "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves

[14] 33 U.S.C.A. § 1251.
[15] 33 U.S.C.A. § 1344.
[16] 40 C.F.R. § 1508.9(a).

unresolved conflicts concerning alternative uses of available resources…"[17] If an agency fails to consider logical alternatives at the EA stage without meaningful discussion, the EA is not adequate.[18]

In this case, it appears that the USACE intends to accept, at face value, the applicant's statements that an alternatives analysis has already been completed and the proposed system is the preferred alternative. But under NEPA, this is the role of the agency, not the applicant. If the agency accepts information from the applicant, the "agency shall independently evaluate the information submitted and shall be responsible for its accuracy."[19] Moreover, even if the agency permits the applicant to prepare an environmental assessment, the agency "shall make its own evaluation of the environmental issues and take responsibility for the scope and content of the environmental assessment."[20]

The purpose of the environmental review process is to ensure that environmental information is scientifically accurate and available to public officials and citizens before decisions are made and before actions are taken.[21] NEPA procedures are designed to ensure that environmental information is of "high quality."[22] "Accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA."[23] If USACE allows U.S. Steel-Minntac's consultants to complete the alternatives analysis outside of the NEPA process, it is failing in its duty to ensure accurate scientific analysis, expert agency comment, and public scrutiny. Any analysis of alternatives must be part of the EA process in order to ensure that the analysis complies with the rigors of NEPA.

B. U.S. Steel-Minntac's analysis of alternatives is inadequate.

Nor does it appear that the applicant has completed an alternatives analysis with sufficient rigor. MCEA located two documents that analyzed alternative strategies for seepage collection and return systems at the Minntac tailings basin. A 2011 "Conceptual Options Study Report" prepared by a U.S. Steel consulting company ("Hatch Memo") identified six options for seepage collection: Collection Swales and Catch Basins, Slurry/Concrete Cut-off Wall, Vinyl/Steel Pile Cut-Off Wall, Well Pump System, Open Ditch Conveyance System, and French Drain System.[24] Four of the options were dismissed with little discussion. The Slurry/Concrete cut-off wall, for instance, was rejected because it could be *too* successful at eliminating surface seepage, which might affect wetlands. But, confusingly, it was also rejected because some groundwater seepage could still upflow and "additional techniques would have to be implemented to collect and return

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[17] 42 U.S.C. § 4331(2)(E).
[18] *See, e.g., Alaska Center for Environment v. West*, 31 F.Supp.2d 714, 722 (D. Ala. 1998).
[19] 40 C.F.R. § 1506.5(a).
[20] 40 C.F.R. § 1506.5(b).
[21] 40 C.F.R. § 1500.1.
[22] *Id.*
[23] *Id.*
[24] "United State Steel Corporation Minntac Western Seepage Collection Conceptual Options Study Report," prepared by Hatch, December 5, 2011, attached as Exhibit 5.

the surface seepage." Groundwater discharge can also benefit wetlands, so this analysis seems a little confused about whether seepage from the tailings basin is good because it benefits wetlands or bad because it pollutes. Nor is it clear why additional seepage collection is mentioned as a drawback only for this proposed method, as most, if not all of the other methods also fail to collect groundwater discharge from the tailings basin.

A well pump system apparently was also rejected because of impacts to downstream wetlands, but the contractor recommended a mitigation measure of a sheet pile wall to reduce drawdown of groundwater from downstream wetlands. It is not clear whether the contractor's assessment of that option included this mitigation measure, as drawdown to wetlands is identified as the only drawback to that system without mention of whether a sheet pile wall could assist in mitigation. Ultimately, the contractor evaluated the options by assigning numerical values in 7 categories – "Agency Approval," "Suitability," "Construction Safety," Constructability," "Environmental Compliance," "Impact on Adjacent Wetlands," and "Schedule." But these categories are not necessarily consistent with NEPA, particularly "agency approval," since the analysis of alternatives is supposed to drive agency approval, and not vice versa. Nor is the contractor necessarily qualified to evaluate "environmental compliance."

The Hatch Memo also does not include discussion of potential mitigation measures, or an analysis of environmental impacts of the various alternatives.[25] For instance, a slurry wall appears to be the most effective alternative for collecting polluted water, yet it was rejected because collecting *too much* water would impact adjacent wetlands. But discharging water from the tailings basin laden with sulfates and other pollutants carries its own environmental risks that may well outweigh the loss of wetlands. Discharge of sulfates into wetlands promotes mercury methylation, in addition to impacts on wild rice and other aquatic life. There may also be mitigation measures available, such as augmenting the flow to adjacent wetlands using water after it is collected and treated, or using water from another source. Indeed, Hatch has already completed a study concluding that flow augmentation to the Dark River is feasible.[26] While this study was focused on augmentation of 600 gpm to address the impacts of the proposed SC&RS, there is no reason the study could not be expanded to look at a high volume augmentation if a more effective seepage collection system was installed.

Nor does the 2012 document include a thorough or supported analysis of the effectiveness of each alternative. A 2007 document completed by another consultant, STS, evaluated seepage conditions on the Sand River side with a similarly thin level of analysis. For instance, it concluded that the French Drain and hydraulic barrier options were similarly effective at 55-60 percent collection of seepage.[27] While the French Drain system has proven less effective than 55-

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[25] 40 C.F.R. § 1508.9(b).

[26] "Dark River Watershed Flow Augmentation Study," Hatch, January 4, 2012, attached as Exhibit 6.

[27] "Subsurface Exploration and Seepage Evaluation," STS, November 28, 2007, Table 4-1, p. 16, attached as Exhibit 7. While MCEA recognizes that this 2007document is designed to evaluate the system built on the Sand River side of the basin, and not the Dark River, it seems likely that U.S. Steel-Minntac is pursuing the French Drain design because it was implemented on the Sand

60 percent in practice (see Section III.C., below), the hydraulic barrier may have the potential to be far more effective. PolyMet, in its recent Supplemental Draft EIS, recently claimed that its hydraulic barrier would collect greater than 90 percent of the seepage from its existing tailing basin, built in the same era as the Minntac facility.[28] While differences between the sites may account for some of this disparity, the hydraulic barrier is worthy of more investigation as an alternative, including investigation into other sites where hydraulic barriers have been successfully installed.

C. State agencies have evidence that U.S. Steel-Minntac's proposed collection system is not effective.

One of the challenges of the Minntac tailings basin is that the tailings basin water leaves the tailings basin through various channels, all of which impact surface water in the area. The tailings basin has two regulated surface discharge points, one of which was eliminated when the seepage collection system was constructed on the Sand River side. Yet the elimination of surface discharge points has by no means stopped the tailings basin's impact on surface waters. Polluted water continues to seep from the perimeter dike.[29] It also continues to leak directly into groundwater, which then travels to surface water.[30] Moreover, MDNR staff has stated that the behavior of sulfate, a primary pollutant, is "non-conservative," meaning that as water flows through the tailings basin, there are substantial gains and losses along the flowpath.[31] Thus, a system designed only to address surface discharges will only address a portion of the problem.

MPCA and MDNR now have evidence that the French Drain strategy proposed is only marginally effective. U.S. Steel Minntac has already constructed a similar system on the Sand River side of its tailings basin. When it approved the proposed seepage and collection return system, MPCA noted that the proposal was *not* sufficient to meet the requirements of the

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River side, and U.S. Steel-Minntac may represent to USACE that it completed an adequate alternatives analysis on the Sand River side and argue that one is not necessary in this case. MCEA brings up this 2007 document to demonstrate that an adequate alternatives analysis was not completed for the Sand River project, either.

[28] PolyMet SDEIS, Chapter 3, p. 3-46.

[29] Minntac Groundwater Sulfate Reduction Plan, July 12, 2013, attached as Exhibit 8.

[30] *See, e.g.*, "Estimate of Time of Travel between the Tailings Basin and the Twin Lakes Minntac Tailings Basin," Conestoga-Rovers & Assoc., July 11, 2013 (simulating groundwater flowpaths between the tailings basin and the nearby Twin Lakes), attached as Exhibit 9; "Groundwater Flow and Sulfate Transport Modeling Report," Conestoga-Rovers & Assoc., June 2013, p. 12-13, attached as Exhibit 10 (noting that seepage from the tailings basin is a primary source of groundwater, and groundwater discharges to wetlands and surface water); "Rationale for Proposed Minntac Tailings Basin Surface Water Compliance Points and Discharge Standards," Draft Memo by Erik Smith, MPCA Hydrologist, stating that the greater mass of sulfate farther from the tailings basin strongly suggest that "deeper groundwater flow" from the tailings basin is contributing sulfates to nearby streams, attached as Exhibit 11.

[31] *See, e.g.,* Email from Mike Berndt, MDNR, to Ann Foss and John Thomas at MPCA, dated June 24, 2013, attached as Exhibit 12.

Schedule of Compliance because it would not result in compliance with the sulfate standard for wild rice.[32] MPCA stated that the system would only collect 55 to 60 percent of the seepage, while over 95 percent over the seepage would need to be collected to meet the wild rice standard. MPCA concluded that although the SC&R would not sufficient to meet water quality standards, some progress is better than no progress, and approved construction of the proposed design.

Now that it is in place, there is additional data that shows that the SC&R system on the Sand River side is far from effective. The limitation of the system is that, at most, it collects surface discharge only, and it appears that a substantial amount of seepage at the Minntac tailings basin is occurring at a subsurface level, either under the dikes or directly to groundwater. Data from MPCA and the 1854 Treaty Authority demonstrate that although sulfate concentrations in the surface waters of the adjacent Twin Lakes have dropped since 2011, they still range between 60 mg/l and almost 300 mg/l, well in excess of the sulfate standard for wild rice waters.[33] An MPCA Powerpoint states that 6780 kg/day of sulfate was discharging to the Sand River prior to construction of the seepage collection system, and 4094 kg/day discharge after construction, while the subsurface seepage presumably remained unchanged at 912 kg/day.[34] While the SC&RS did make a substantial difference, it collected approximately 40 percent of the total mass of sulfate, as compared to the 55 to 60 percent of total seepage predicted at construction.

The same Powerpoint presentation demonstrates that the SC&RS system on the Dark River side will not resolve tailings basin water pollution from sulfates. It states that the surface discharge from the Dark River side is 14,586 kg/day. A 40 percent reduction in this discharge would reduce the discharge to 8,751 kg/day. Again, a substantial reduction, but the mass of sulfates would still be more than twice the volume on the Sand River side, which U.S. Steel has acknowledged is far too high to comply with the groundwater standard for sulfate of 250 mg/l, let alone the surface water standard for wild rice of 10 mg/l.[35]

D. A failure to conduct an adequate alternatives analysis may result in larger wetland impacts in the long run.

Failure to conduct an adequate alternatives analysis may mean that U.S. Steel will have to make additional improvements at a later date, resulting in additional impacts to wetlands. U.S. Steel has already constructed a system on the Sand River side that is similar to the proposed system at issue here, yet it is currently contemplating a hydraulic barrier because the current system is

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[32] Letter from John Thomas, Water Quality Speciality at MPCA, to Tom Moe, U.S. Steel, dated January 10, 2008, attached as Exhibit 13.
[33] Minntac graphs, created by MPCA, attached as Exhibit 14.
[34] US Steel Minntac Tailings Basin graphs, created by MPCA, attached as Exhibit 15.
[35] It is unclear whether downstream waters on the Dark River side will be designated "wild rice waters," although initial surveys indicate some presence of wild rice in Dark Lake. *See* "2013 Wild Rice and water Quality Sampling Report, Dark River and Dark Lake," prepared by Barr Engineering, December 2013, attached as Exhibit 16. However, the 250 mg/l sulfate standard will apply to groundwater, as well as the downstream portion of the Dark River designated a trout stream. Minn. R. 7050.0220, Subp. 3A.

insufficient to meet groundwater standards.[36] Thus, while U.S. Steel may have chosen a design to minimize impacts on wetlands, it may well be that its choice has a greater impact on wetlands in the long run because it will have construct yet another, more effective system in addition to this one at a later date, as it is pursuing on the Sand River side. A proper alternatives analysis makes it more likely that U.S. Steel will choose the right solution the first time.

What may be the best option – a wastewater treatment facility with a strategy to address sulfates, such as reverse osmosis or nanofiltration – is not even mentioned in the Hatch or STS memos. U.S. Steel itself proposed such a system in 2008, but withdrew its proposal.[37] The concentration of sulfates and other pollutants in the tailings basin has risen over time.[38] It is hard to imagine a solution that doesn't treat the discharge, and perhaps the water within the tailings basin as well.

U.S. Steel-Minntac is proposing to destroy wetlands to build a seepage and collection system. The environmental review process is designed to evaluate that proposal, including alternatives, to ensure that the proposal is well-designed. The Army Corps of Engineers has an obligation as part of the environmental review process to ensure that wetlands are not destroyed in vain – that U.S. Steel-Minntac is moving forward with the best available option for addressing water quality at the tailings basin now.

In sum, if USACE accepts the alternatives analysis completed by U.S. Steel's consultant, then it is abdicating its duty to independently verify the consultant's work, and failing to achieve the goals of NEPA to ensure scientific accuracy, expert agency commentary and public scrutiny. Instead, the USACE must complete an EA that evaluates all alternative designs and reaches an independent conclusion as to the best strategy for seepage collection on the Dark River side of the tailings basin.

V. The 404 Permit Process Must Ensure That The Proposed Project Complies With The Clean Water Act.

A. The project may not proceed without appropriate wetlands mitigation.

The Public Notice issued by USACE states that U.S. Steel will mitigate its wetland impacts by purchasing credits from its Palisade III Wetland Bank located in Aitken County, Minnesota. First, it is not clear that this decision complies with the Clean Water Act and the Wetlands

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[36] "Groundwater Sulfate Reduction Plan, Minntac Tailings Basin," Revised January 2014, prepared by Barr Engineering, p. 9, attached as Exhibit 17 ("Based on the alternative screening presented in Appendix A and summarized in this section, U.S. Steel will pursue active or hybrid hydraulic containment with or without ex-situ treatment and in-site sulfate reduction as potential avenues for achieving compliance with Amendment No. 1 to the SOC.")

[37] *See, e.g.,* Letter from Jeff Udd, MPCA to Tom Moe, dated December 23, 2008, approving U.S. Steel-Minntac Revised Water Management Plan including water quality treatment of approximately 7,000 gpm, attached as Exhibit 18.

[38] Minntac TB SQ History Graph, attached to email from Richard Clark, MPCA to Ann Foss, MPCA, dated May 1, 2013, attached as Exhibit 19.

Conservation Act siting requirements, both of which require that the applicant prioritize mitigation options within the watershed.[39] While mining companies often observe (rightly or wrongly) that large-scale mitigation opportunities are not available within the watershed, U.S. Steel is only impacting 25.27 acres for this particular project. There is no reason it needs to find a large-scale site. USACE should require U.S. Steel to pursue opportunities, including banking credits, within the watershed before relying on the Palisade site, which has likely been chosen out of convenience because it is U.S. Steel's own site. Second, MCEA is not aware of *any* credits having been approved from the Palisade III site at this time. This project cannot proceed until credits at this or a more appropriate site are available.

B. The project may not proceed without a thorough 404(b)(1) analysis.

Any 404(b)(1) analysis completed for the project must consider the effects to the physical, chemical and biological integrity of waters of the US that could occur as a result of the discharge of dredged or fill material into waters of the US. The discharge of 25.3 acres of dredged or fill material into wetlands determined to be waters of the US would likely reduce surface pollution to the Dark River watershed. However, as described above, there may be other alternatives that would better protect the chemical and biological integrity of downstream waters of the US. These alternatives must be considered and thoroughly evaluated SC&RS' 404(b)(1) analysis.

Authorizing the 25 acres of fill for a project that may only reduce some of the pollution may not be the least environmentally damaging practicable alternative. Rather, it is possible that a project which may potentially result in larger direct or indirect impacts (e.g. drainage) to wetlands could also result in more beneficial impacts or fewer cumulative impacts to the waters of the US within the larger aquatic ecosystem of the Dark River watershed. According to 40 CFR 230.10(b)(1), the discharge of dredged or fill material must not be permitted if it would cause or contribute to the violations of any applicable State water quality standard. If the proposed project does not result in the Dark River meeting all applicable State water quality standards, which has been shown on the Sand River side of the tailings basin, the value of the SC&RS project must be questioned.

Without additional alternatives considered, the proposed project's 404(b)(1) alternatives analysis would be incomplete and inaccurate, potentially resulting in the selection of an alternative that is not the least environmentally damaging practicable alternative.

Therefore, MCEA recommends:

(1) That the purpose of the project be broadened to permit adequate discussion of alternatives;

(2) That an Environmental Assessment ("EA") associated with the proposed project include a range of alternative strategies to meet this broader purpose;

[39] 33 C.F.R. Part 332.3(c); Minn. R. 8420.0522, Subp. 7.

(3) That the EA consider potential impacts on groundwater, downstream surface water quality, and wetlands when evaluating those alternatives;

(4) That the EA associated with the proposed project be released for public comment; and

(5) That this project not be permitted to go forward unless U.S. Steel is able to prove that it has complied with sequencing requirements, and that sufficient wetlands credits have been approved at the Palisade III or another site to mitigate the lost wetlands.

(6) That the 404(b)(1) analysis considers a range of practicable alternatives in light of the project's purpose to reduce the impact of surface seepage on downstream water quality of the Dark River watershed.

Thank you for the opportunity to comment on this Section 404 Permit application. Please do not hesitate to contact me with questions.

Sincerely,

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KH/lh

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